



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

646.4002

Job Sheet 176313



Part No: 646.4002

Job Qty: 1 ea

Part Name: AS350 Wiper Deflector



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/20/18

Job Tracking No:

Due Date: 5/18/18

Created By: Linda Lacelle

Type: SOLD

Description:

Note: DWG REV C1 IPP REV:A 12.12.23 NEW ISSUE DD VERF:JLM IPP REV:B 16.01.07 DWG REV:C DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	5/18/18	5/18/18	0.00	0.00	Start Up Stores/Pkg-1		APR 20 2018
110	Packaging	1 pcs	5/18/18	5/18/18	0.00	0.00	Packaging1-1		JUN 01 2018
120	QC	1 pcs	5/18/18	5/18/18	0.00	0.00	QC4		
125	DC	1 pcs	5/18/18	5/18/18	0.00	0.00	DC		
130	Packaging	1 pcs	5/18/18	5/18/18	0.00	0.00	PackagingB-1		
140	QC21-FG	1 Ea	5/18/18	5/18/18	0.00	0.00	QC21		JUN 05 2018

Part Op 125 - Photocopy bluefile & type labels per PPP 646.4002

Descriptions: 130 - Identify and pack for shipping as per PPP 646.4002 Location : FG102

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
600.1012	Sealant PR1425B2 (#654 sem)	1 pcs (1 ea)	90-Start up Operation	5057401
646.3410	LH Wiper Deflector	1 Ea (1 ea)	90-Start up Operation	5125082-10
646.3411	RH Wiper Deflector	1 Ea (1 ea)	90-Start up Operation	5125082-9
646.3814	Wiper Bracket	2 Ea (2 ea)	90-Start up Operation	5040335
MS21042L3	Nut	6 Ea (6 ea)	90-Start up Operation	50381104
MS24694-S53	Screw	2 Ea (2 ea)	90-Start up Operation	1113351
MS27039-1-18	Screw	2 Ea (2 ea)	90-Start up Operation	424326
MS27039-1-19	Screw	2 Ea (2 ea)	90-Start up Operation	5030051
NAS1149F0332P	Washer	16 Ea (16 ea)	90-Start up Operation	5057525

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	600.1012	1	24	0
	646.3410	1	9	0
	646.3411	1	11	0
	646.3814	2	2	0
	MS21042L3	6	2,822	0
	MS24694-S53	2	231	0
	MS27039-1-18	2	1,343	0
	MS27039-1-19	2	259	0
	NAS1149F0332P	16	3,015	0

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev I

Part Specifications
Specifications could not be found.

Plex 4/20/18 10:07 AM dart.lacelle.linda

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

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NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2. INSTALL F/N 14 WITH F/N 52 & 53.

3. 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASER-CARR P/N 75935A651.

4. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

5. REUSE FASTENERS FROM F/N 1.

6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7. AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

9. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

REFERENCE ONLY

UNINCORPORATED ECN(S)

05304

5	5	5	78	601.3875	SCREW	MS27039-1-1				
1	1	1	77	646.9410	SHIM	MS11087-NB02P				
	4	4	76	601.2764	WASHER	MS210427-08				
	2	2	75	601.2973	LOCKNUT	MS27039-0813				
	2	2	74	601.2988	SCREW	MS21042-5				
	2	2	73	601.2943	LOCKNUT	AN316C4R				
	2	2	72	601.3128	NUT	MS21042-4				
	2	2	71	601.3209	LOCKNUT	MS114990430P				
	4	4	70	601.2638	WASHER	ANAC7A				
	2	2	69	601.2669	BOLT	AN565-34R				
	2	2	68	601.3119	CLEVIS	AN644-5A				
	2	2	67	601.3121	EYE BOLT					
	2	2	66	650.9201	EYE BRACKET ASSY					
REF	REF	REF	65	647.5701	GPS MOUNT KIT					
		2	64	601.3151	WASHER	MS114990363P				
		2	63	601.2911	SCREW	MS246F4553				
	24	24	62	601.2637	SCREW	MS27039-1-16				
2	2	2	61	601.2763	BOLT	AN3-12A				
	1	1	60	646.3913	SHIM					
	4	4	59	646.3912	SHIM					
	1	1	58	646.3911	SHIM					
	4	4	57	646.3910	SHIM					
	5	5	56	600.1013	PRIMER					
8 FT	8 FT	55	600.0129	VHB TAPE						
1	1	54	600.1012	SEALANT		PP-1425 CLASS B				
	1	53	600.0991	MAGNOBOND 6398 PART B						
	1	52	600.0990	MAGNOBOND 6398 PART A						
6	10	10	51	601.2826	BOLT	AN3-11A				
		2	50	646.3814	WIPER BRACKET					
		2	49	601.2910	SCREW	MS27039-1-18				
2		2	48	601.1365	SCREW	MS27039-1-10				
2		2	47	646.3719	DOUBLER					
	2	2	46	646.3718	CUSTOM WASHER					
1		1	45	646.3717	DOUBLER					
	22	2	44	601.1948	SCREW	MS27039-1-19				
	2	2	43	601.1952	SCREW	MS27039-1-20				
	4	4	42	601.1956	SCREW	MS27039-1-21				
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 02799, 02801, 02719 & 02745	02/08/2010	P. BRAVO
B	INCORPORATED ECN 03046, 03079 & 04731	11/04/2010	P. BRAVO
C	INCORPORATED ECN 05008	01/09/2015	P. BRAVO

		2		2	41	601.2829	SCREW	MS2047AS54		
		2		2	40	601.2831	RIVET	MS20476ADS-7		
		1		1	39	646.3716	GAUGE BRACKET			
		6		6	38	601.1953	SCREW	MS27039-1-12		
	2			2	37	646.3715	STRUT DOUBLER			
		2		2	36	601.2824	BOLT	AN3-5A		
12	36			36	35	601.2277	RIVET	CCF04483-00		
6	18			18	34	600.0795	NUTPLATE	MS21047-3		
3	3			3	33	601.2565	RIVET	MS2047ADS-7		
1	1			1	32	646.3813	STRUT BRACKET			
4	4			4	31	601.2822	BOLT	AN3-3A		
	2			2	30	646.3812	GUSSET BRACKET			
8	8			8	29	601.2564	RIVET	MS2047ADS-6		
1	1			1	28	646.3714	GUSSET			
	1			1	27	646.3610	FILLER			
	3			3	26	601.2830	SCREW	MS2047AS55		
	2			2	25	601.2825	BOLT	AN3-6A		
	1			1	24	646.3811	RADIUS BLOCK			
	1			1	23	646.3712	CLIP			
	1			1	22	646.3711	CLIP			
8	8			8	21	601.2832	RIVET	MS2047ADS-5		
14	14			14	20	601.2020	RIVET	CR0215-5-3		
4	6	4	6	10	19	601.2823	BOLT	AN3-4A		
	1			1	18	601.2827	BOLT	AN3-13A		
	5			5	17	601.2912	SCREW	MS2047AS51		
1	1			1	16	646.3713	GUSSET			
1	1			1	15	646.3210	SUPPORT			
				1	14	646.3710	DOUBLER			
	1			1	13	646.3110	CHANNEL			
14	10	8	53	6	61	12	601.1624	LOCKNUT	MS21042L3	
16	32	18	120	16	144	11	601.1607	WASHER	MS21042L3P	
				1	10	646.3410	LH WIPER DEFLECTOR			
				1	9	646.3411	RH WIPER DEFLECTOR			
				2	8	647.7703	STRUT ASSY			
				2	7	647.0112	STRUT BRACKET			
	1			1	6	646.3511	STRUT			
	1			1	5	646.3510	STRUT			
2		2		2	4	646.3810	BRACKET			
				1	3	646.2910	DEFLECTOR			
	1			1	2	646.3001	LOWER CUTTER ASSY			
				1	1	646.3301	UPPER CUTTER ASSY			
X						646.4006	LOWER CUTTER TREAD PROVISIONS			
	X					646.4005	LOWER CUTTER REMOVABLE PROVISIONS			
		X				646.4004	FIXED PROVISIONS KIT			
			X			646.4003	CABLE CUTTERS KIT WITHOUT FIXED PROVISIONS			
				X		646.4002	AS350 WIPER DEFLECTOR KIT			
					X	646.4001	AS350 CABLE CUTTERS KIT			
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

QTY		NEXT ASSY (S)		ORIGINAL DATE 02/08/2010		DRAWN BY S. HUR		CHECKED BY P. BRAVO		DESIGNED BY P. BRAVO		DATE 02/08/2010	
9030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760) 724-5300 APICAL INDUSTRIES, INC. DBA DART AEROSPACE													
AS350 CABLE CUTTERS KIT													
SET	07M26	ENG. NO.	646.4000	REV.	C								
SCALE: NONE SHEET 1 OF 5													

6155

Linda Lacelle

Tue 2018-06-05 9:13 AM

To Sonia Quirion <squirion@dartaero.com>; Shipping <shipping@dartaero.com>;

cc Eric Downing <edowning@dartaero.com>;

Per Lewis – pls remove all adhesives for 3 x 646.4001, 3 x 646.4002

Merci

Eric- when I receive this, who do I give it to???